IN THE SPECIFICATION

1. On page 10, line 11 of the Specification as filed, please insert the following paragraph between the paragraph starting "Detailed Description of the Preferred Embodiment" and the paragraph ending in "...wherein a heat-shrink coating is utilized." :

--FIG. 16b is a cross-sectional view of an exemplary embodiment of a toroid core transformer element according to the present invention, including polymer insulation layer.--

2. On page 35, lines 16-17 of the Specification as filed, please insert the following paragraphs between the paragraph starting "It will be recognized that while..." and the paragraph ending in "...discloses exemplary methods for applying such coatings to toroidal devices." –

--Referring to FIG. 16b. the device 1600 also includes a first winding 1662 which comprises a fine gauge wire wrapped in a number of turns around the thickness of the core 1663. In the present embodiment, "magnet" wire as previously described is selected due to its thin film insulation 1684. Hence, for the same number of turns of magnet wire and a comparable conductor having a thicker insulation such as Teflon™, less space is consumed when using the magnet wire. It will be recognized, however, that other types of wire having very thin or "film" insulation may be used consistent with the invention as desired. A second winding 1668 is applied over the top of the first winding 1662 in typical transformer winding fashion. This second winding 1668 also comprises magnet wire in the illustrated embodiment. In order to overcome the requirement of high dielectric strength (typically 5000 V/mil or higher) between the first and second windings, the present invention advantageously uses one or more layers of insulation 1683 which is applied after the first winding 1662 is wound onto the core 1663, but before the second winding 1668 is wound.

As illustrated in FIG. 16b, these layers of insulation 1683 provide the necessary separation between the first and second windings, which may be maintained at significantly different potentials. Additionally, the insulation coating 1683 applied to the first winding 1662 insulates the winding from other potentials, such as those present on nearby electrical terminals or grounds. The coating in the illustrated embodiment may comprise the well known Parylene polymer (e.g., Parylene C, N, or D manufactured by Special Coating Systems, a Cookson Company, and other companies located in Europe and Asia). Parylene is a thermoplastic polymer that is linear in nature, possesses superior dielectric properties, and has extreme chemical resistance. The Parylene coating is generally colorless and transparent, although colored/opaque varieties may be used. When applied using the vacuum deposition process, the coating is uniform in thickness,

and pinhole free, which advantageously provides the desired high dielectric strength required with minimal coating thickness. The average cured thickness of the Parylene coating in the illustrated embodiment is generally in the range of 1 to 2 mils, although more or less thickness may be used depending on the electrical requirements of the application.

It will be apparent to those of ordinary skill in the polymer chemistry arts that any number of different insulating compounds may be used in place of, or even in conjunction with, the Parylene coating described herein. Parylene was chosen for its superior properties and low cost; however, certain applications may dictate the use of other insulating materials. Such materials may be polymers such as Parylene, or alternatively may be other types of polymers such as fluoropolymers (e.g., Teflon, Tefzel), polyethylenes (e.g., XLPE), polyvinylchlorides (PVCs), or conceivably even elastomers (e.g., EPR, EPDM). --